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08/835,732 04/11/97 KLEIN

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EXAMINER

NGUYEN, D

ART UNIT

PAPER NUMBER

2871

DATE MAILED:

09/28/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trad marks

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Office Action Summary

Application No.
08/835,732

Applicant(s)
Klein

Examiner
Dung Nguyen

Art Unit
2871



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jul 3, 2001
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

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Response to Amendment

Applicant's amendment dated 07/03/2001 has been received and entered.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Objections

1. Claims 8 and 11 are objected to because of the informalities as set forth below .

In claim 8: on line 3, the feature thereof "the LCD housing assembly" lacks a proper antecedent basis. Applicant should note that since the base claim recites a LCD housing; therefore, should "assembly" (line 3) be deleted?

Claim 11 is objected for the same reason as set forth in element a) above. Should "assembly" (line 2) be deleted?

Appropriate correction is required.

Double Patenting

2. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

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3. Claim 10/3 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 7/3. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 102

4. Claims 1-2, 15-16 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Tsuchiyama et al., U.S. Patent No. 5,548,271 .

Tsuchiyama et al disclose a data display pager which as understood is a computerized device. In the embodiment as described at column 3 and shown in figures 4 and 3B, the pager comprises a LCD display panel (12); a housing having a reflecting frame (36) and a light conducting plate (38) wherein the frame and the plate are formed integrally with each other; a set of light emitting diodes (12a, 12b) being substantially enclosed by the openings (38a, 38b) of the light conducting plate (38). As a result, the light conducting plate (38) guides light from the light emitting diodes (12a, 12b) to the LCD display panel (12) and simultaneously acts as a protecting element for the LCD display panel.

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Claim Rejections - 35 USC § 103

5. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchiyama et al. U.S. Patent No. 5,548,271.

The pager provided by Tsuchiyama et al as described above meets all of the features concerning the components being used as well as the structural relationship among the components except that Tsuchiyama et al do not clearly set forth a method or set of steps for conducting light as claimed. However, it would have been obvious to one skilled in the art at the time the invention was made to design a method or set forth a sequence of steps including the step of using a set of light emitting diodes (12a, 12b) for generating light, and a step of using a light conducting plate (38) for guiding light from the diodes to illuminate a LCD display panel (12).

6. Claims 3-5, 7, 10-11, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchiyama et al (U.S. Patent No. 5,548,271) in view of Applicant's admitted prior art figure 2 of the present application.

The modification to Tsuchiyama et al as described above meets all of the features recited in the claims 3-4, 7, 10-11 and 14 except the feature concerning the use of a reflectively coated surface on the outer surface of the light conducting plate. However, the use of a backlight illuminating system for an optical device having a LCD display panel wherein the backlight comprises a light conducting plate whose outer surface is coated with a reflector for the purpose of reflecting light back to the LCD display panel is clearly known to one skilled in the art as can

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be seen in the prior art described above and shown in figure 2 of the present application. It is also well known to one skilled in the art to use a metal layer as a light reflector, and such metal layer can act as an EMI shield. The reason is that 1) the use of metal layer such as aluminum, chromium, or nickel as a reflective layer in an illumination apparatus for a LCD is notoriously well known; 2) consumer desire for higher computing power of computerized device coupled with the advent of faster computer processors available have resulted in an increase in electromagnetic interference being generated by such computerized device therefore, the reflective layer, due to its conductive property, can act as an EMI shield to attenuate EMI leaking out of the computerized device; and 3) the reflective layer also acts as a heat sink to reduce the increasing heat being associated with faster processors and computerized electronics. Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the illuminating system provided by Tsuchiyama et al by using a metal layer as a light reflector on the outer surface of the light conducting plate as suggested by the prior art described at page 3 and shown in figure 2 of the present application for the purpose of reflecting light from the light system to the LCD display panel for the purpose of increasing the light intensity and uniformity.

7. Claims 6, 9, 12-13 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchiyama et al in view of Applicant's admitted prior art figure 2 as applied to claims 1 and 3 above, and further in view of Habing et al (U.S. Patent No. 5,661,578, of record).

The combined product as provided by Tsuchiyama et al and the prior art as described in the paragraph 10) above meets all of the limitations of the device as claimed in claims 6, 9 and

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12-13 except the type of the light emitting elements being used. In other words, while Tsuchiyama et al teach the use of light emitting diodes as light emitting elements, they do not clearly state that other type of light emitting element such as a cold cathode fluorescent lamp can be used for generating light. However, the use of different light emitting elements for providing light in an optical device wherein the light emitting elements can be light emitting diode or cold cathode fluorescent lamp is clearly known to one skilled in the art as disclosed by Habing et al in their LCD device. See Habing et al, column 5, lines 27-34. Thus, it would have been obvious to one skilled in the art at the time the invention was made to use any suitable illuminating elements including a cold cathode fluorescent lamp in lieu of a light emitting diode as suggested by Habing et al for the purpose of providing light to illuminate a LCD display panel in a particular design.

With regard to the method steps as recited in present claims 18 and 19, it would have been obvious to one skilled in the art to utilize the combined product as described above by design a method or set forth a sequence of steps including the step of using a set of light emitting diodes (12a, 12b) for generating light then a step of using a light conducting plate (38) for guiding light from the diodes to illuminate a LCD display panel (12), and making the outer surface of the light conducting plate as a reflecting element for the purpose of reflecting light from the light conducting plate back to the LCD display panel .

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8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchiyama et al in view of Applicant's admitted prior art figure 2 as applied to claims 1-3 above and with or without Ohno et al (U.S. Patent No. 5,128,781, of record)..

The combined product as described above meets all of the limitations of the device as claimed in claim 8 except the feature concerning the arrangement of the light illuminating element, the housing and the LCD display panel. However, an arrangement of the light illuminating element in a gap defined by the housing and the LCD as claimed is merely that of a preferred embodiment and no criticality has been disclosed. The support for this conclusion is found in the present specification in which applicant has taught that the LCD is located in an adjacent manner with respect to the housing while the light emitting elements are coupled to the housing. Such an arrangement is indeed claimed as can be seen in the present claim 5. Further, the arrangement of light emitting element in a central section of a light conducting plate which is separated from a LCD display panel by a gap is clearly suggested in the art as can be seen in the LCD device provided by Ohno et al. See columns 2-3 and figure 1. Thus, absent any showing of criticality, it would have been obvious to one skilled in the art to rearranging the positions of the optical components in an optical device including the arrangement of the light emitting elements in a light conducting plate which is separately located from a LCD as suggested by Ohno et al for the purpose of illuminating the LCD. See also *In re Japikse*, 86 USPQ 70 (CCPA 1950).

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Response to Arguments

9. Applicant's arguments with respect to claims 1-20 as set forth in the Amendment of 07/03/2001 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Exam. Dung Nguyen whose telephone number is (703) 305-0423. The examiner can normally be reached on Monday to Thursday from 8:00 A.M. to 6:00 P.M.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Sikes, can be reached on (703) 308-4842. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

DN

09/26/2001



William L. Sikes
Supervisory Patent Examiner
Group 2871